

## **REMARKS**

### **Summary**

Claims 1-4, 6-8, 24-28, and 31-36 are pending. Claims 1 and 32 are amended, and claim 36 is newly added. No new matter is added.

### **Allowable Subject Matter**

Applicants thank the Examiner for the indication that claims 31, 34, and 35 contain allowable subject matter.

### **102(b) Rejection of Claims 1, 3, 4, 8, 24, 25, 32, and 33**

Claims 1, 3, 4, 8, 24, 25, 32, and 33 are rejected under 35 USC 102(b) as being unpatentable over US Patent No. 4,388,166 to Suzuki et al. (Suzuki). Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

In Figure 1D, Suzuki provides an electrochemical measuring apparatus with a cathode 2, insulation 1, and membranes 5-7. With respect to the cathode, the membranes simply abut the distal tip of the device. The membranes thus contact the tip of the cathode, and contact a surface of the insulation. However, in Suzuki, the membranes do not cover the insulation. Such a feature is distinguishable from pending claim 1 in which a membrane system surrounds and covers the at least one nub.

The term “surround” has been discussed at length as providing for one element to encircle one or more other underlying elements. This understanding was stated clearly at page 2, lines 6-10, of the September 13, 2007 Office Action. This understanding is also consistent with the prior discussions on the subject, and is consistent with the representation in Figure 2 of the present application. In a general sense, the term “surround” is intended to mean that the membrane provides a covering/coating encircling the stated underlying element(s). When considering the scope of the term, reference to Figure 2 shows that the membrane system does not

simply cover or abut an end of the device, but rather encircles the active surface and the nub(s). However, to further clarify the intention of the subject matter of claim 1, the term “covering” has been added to claim 1 to indicate that there is not an intermediate layer between the membrane system and the nub or sensing region. The language is supported by the text and figures of the present application.

Thus, Suzuki fails to teach at least one feature of claim 1, and therefore, claim 1 is patentable over Suzuki.

Claims 3, 4, 8, 24, and 25 depend directly or indirectly on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Suzuki, so are claims 3, 4, 8, 24, and 25 by virtue of at least their dependency.

In addition, Suzuki is also cited for teaching the subject matter of claim 32. Suzuki shows multiple layers of insulation, generally circumferential, and, in regions, including intermediate layers (such as electrolyte 4). By contrast, amended claim 32 clarifies that the plurality of nubs of dielectric material extending outwardly from the electrochemically active surface are spaced along the electrochemically active surface, as opposed to being circumferential to each other.

Claim 33 depends on claim 32, incorporating the features of claim 32. Therefore, as claim 32 is patentable over Suzuki, so is claim 33 by virtue of at least its dependency.

#### **102(b) Rejection of Claims 1-4, 6, 24, and 25**

Claims 1-4, 6, 24, and 25 are rejected under 35 USC 102(b) as being unpatentable over US Patent No. 4,354,913 to Pungor et al. (Pungor). Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

Pungor provides a sensor with an electrode 4, insulating layer 11, and membrane 7. With respect to the electrode, the membranes simply abut the distal tip of the device. The membranes thus contact the tip of the electrode, and contact a surface of the insulating layer. However, in Pungor, the membranes do not cover the insulation. Such

a feature is distinguishable from pending claim 1 in which a membrane system surrounds and covers the at least one nub. As indicated above, the term “covering” has been added to claim 1 to indicate that there is not an intermediate layer between the membrane system and the nub or sensing region.

**103(a) Rejection of Claims 1-4, 6-8, 24, and 25**

Claims 1-4, 6-8, 24, and 25 are rejected under 35 USC 103(a) as being unpatentable over US Patent No. 3,900,382 to Brown (Brown) in view of US Patent No. 5,063,081 to Cozzette et al. (Cozzette). Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

Brown is cited for teaching an electrochemically active surface 13, a dielectric layer 14, and membranes 18 and 19. More specifically, Brown provides an electrode lead 11 with a base member 12 and an electrochemically active surface 13. Surface 13 differs from surface 12 in that active surface 13 is an oxidized form of the metal surface of base member 12. As such, surface 13 provides an electrochemically active region, while base member 12 does not. Base member 12 is surrounded by insulation 14 to separate it from reference electrode 15. Membranes (18, 19) of Brown surround and cover the reference electrode (at the upper end) and surround and cover electrolyte 17 (at the lower). However, the membranes of Brown do not surround and cover the sensing region (element 13) of the electrochemically active surface, and do not surround and cover the insulation (element 14), as otherwise recited in claim 1.

Cozzette is simply cited for including an enzyme in a membrane, and does not remedy the above-discussed deficiencies of Brown.

For the above-stated reasons, Brown and Cozzette fail to teach at least one feature of claim 1, and therefore, claim 1 is patentable over Brown and Cozzette.

Claims 2-4, 6-8, 24, and 25 depend directly or indirectly on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Brown and Cozzette, so are claims 2-4, 6-8, 24, and 25 by virtue of at least their dependency.

### **103(a) Rejection of Claim 26**

Claim 26 is rejected under 35 USC 103(a) as being unpatentable over Suzuki or Pungor. Applicants respectfully traverse the rejections in light of the amendments to the claims and the remarks below.

Claim 26 depends on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Suzuki and Pungor, so is claim 26 by virtue of at least its dependency. Whether examined under 35 USC 102(b) or 103(a), Suzuki and Pungor fail to teach or suggest every element of claim 1 or claim 26. Thus, claim 26 is patentable over Suzuki and Pungor.

### **103(a) Rejection of Claims 8 and 27-28**

Claims 8 and 27-28 are rejected under 35 USC 103(a) as being unpatentable over Pungor in view of US Patent No. 5,165,407 to Wilson (Wilson). Applicants respectfully traverse the rejection in light of the amendments to the claims and the remarks below.

Claims 8 and 27-28 depend directly or indirectly on claim 1, incorporating the features of claim 1. Therefore, as claim 1 is patentable over Pungor, so are claims 8 and 27-28 by virtue of at least their dependency. Wilson fails to overcome the deficiencies of Pungor discussed above. Thus, claims 8 and 27-28 are patentable over Pungor and Wilson for at least the reasons discussed above with respect to claim 1.

### **Conclusion**

In view of the foregoing, Applicant respectfully submits that claims 1-4, 6-8, 24-28, and 31-36 are in condition for allowance, and early issuance of the Notice of Allowance is respectfully requested.

If the Examiner has any questions, he is invited to contact the undersigned at (503) 796-2844. Please charge any shortages and credit any overages to Deposit Account No. 500393.

Respectfully submitted,  
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